Testimony of RENEW Northeast before the
Energy and Technology Committee in support of

Senate Bill 875
An Act Expanding Connecticut's Offshore Wind Energy Portfolio

and

House Bill 7156
An Act Concerning the Procurement of Energy Derived from Offshore Wind

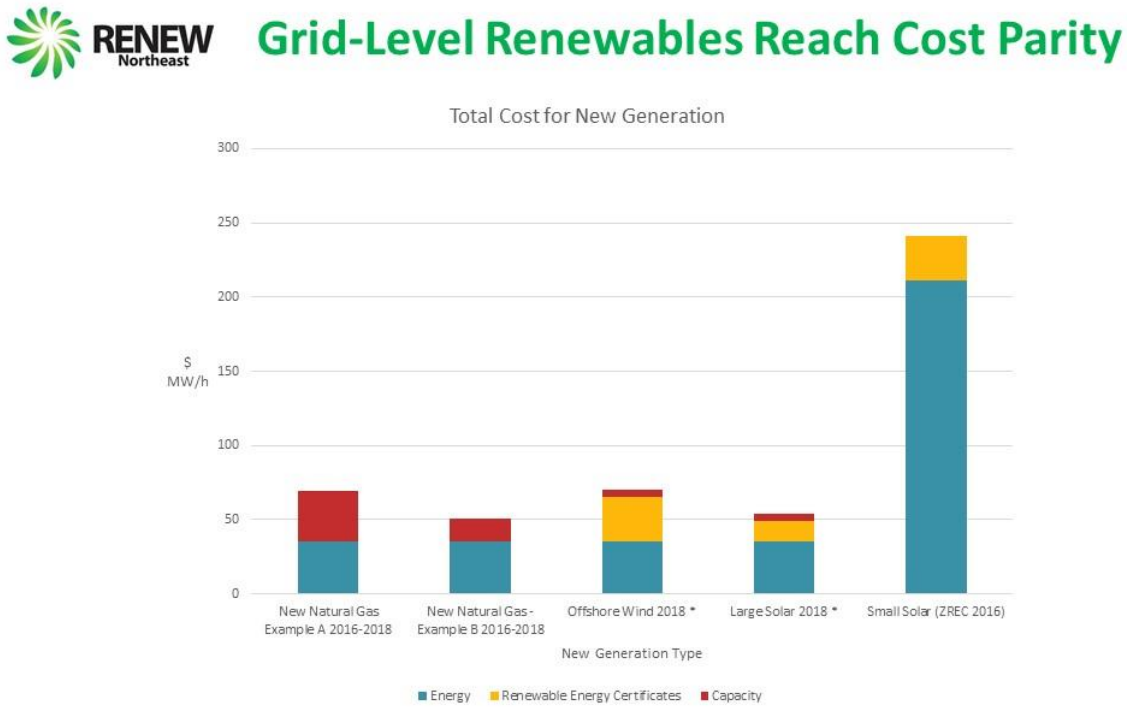
February 26, 2019

Chairmen Needleman and Arconti, Ranking Members Formica and Ferraro, and members of the Energy and Technology Committee, my name is Francis Pullaro and I am here on behalf of RENEW Northeast (RENEW),[1] its Executive Director, to testify in support of Senate Bill 875 and House Bill 7156 both of which seek to bring the benefits of offshore wind to Connecticut. Low-cost offshore wind energy resources will enable Connecticut to meet greenhouse gas reduction requirements under its Global Warming Solutions Act (GWSA) while providing local economic development benefits and increasing power system reliability by lessening our heavy dependence on natural gas fueled electric power generation.

[1] The comments expressed herein represent the views of RENEW and not necessarily those of any particular member of RENEW. RENEW is a non-profit association uniting the renewable energy industry and environmental advocates whose mission involves coordinating the ideas and resources of its members with the goal of increasing environmentally sustainable energy generation in the Northeast from the region's abundant, indigenous renewable resources. RENEW has focused on highlighting the value of grid-scale resources- specifically offshore and onshore wind and small hydropower- and the benefits of transmission investment to deliver renewable energy to load centers in the Northeast. RENEW members own and/or are developing large-scale wind and hydropower facilities in Connecticut and across the Northeast. Others are independent transmission developers with proposals for transmission facilities to connect clean energy resources from around the region to Southern New England.

I. Offshore Wind Is a Cost-Effective Approach to Meeting Connecticut's Environmental and Economic Development Goals

Recent competitive solicitations reveal offshore wind and large-scale solar developers are providing renewable energy at prices at parity with new natural gas power plants.

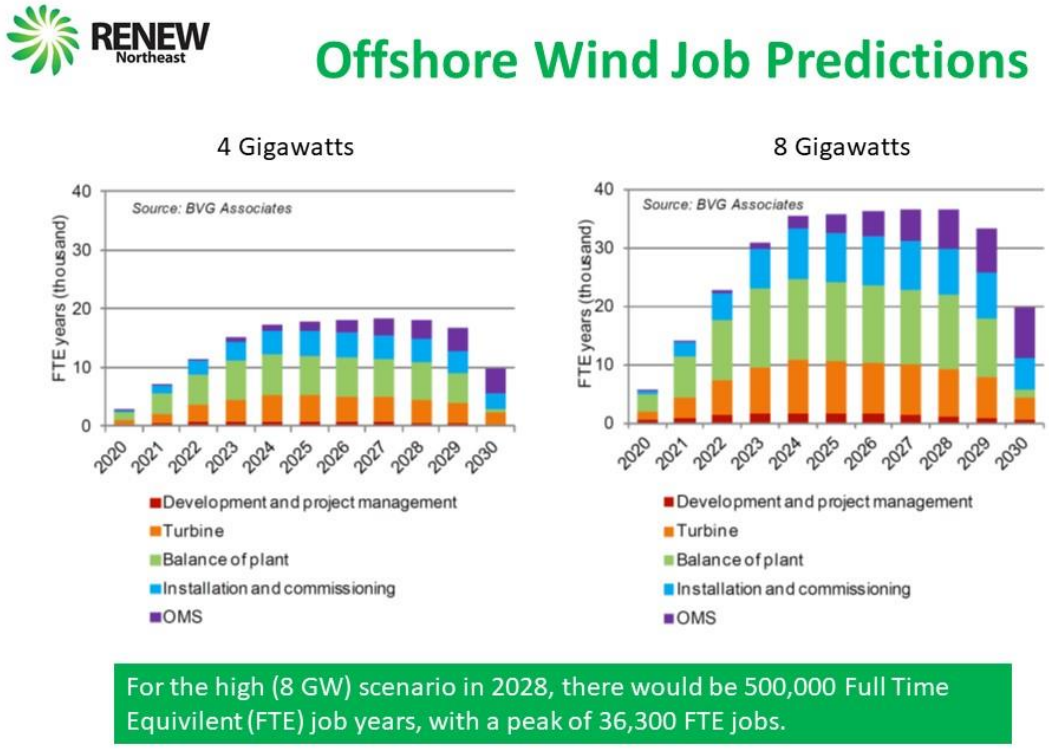


* Assumes wind and solar qualify for limited exemption being phased-out to earn capacity revenue; otherwise renewables prohibited from earning capacity revenue

Competitive offshore wind procurements using long-term contracting proposed by these bills complement Connecticut's Renewable Portfolio Standard (RPS) requirements by lowering cost and improving the chances of projects receiving financing. The greater revenue certainty of contracts from reduced investor exposure to commodity market price risk increases the chances of projects getting financing and at a lower rate. Lower financing costs and the competitive nature of the procurement lowers consumer costs.

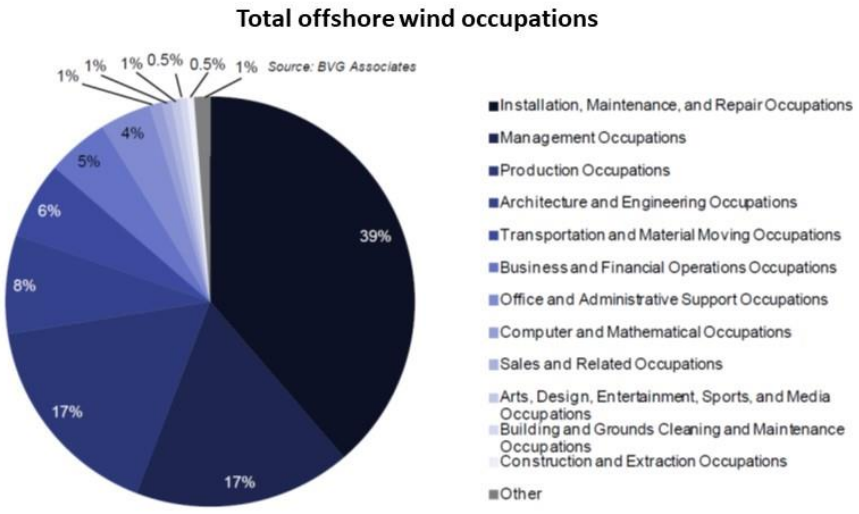
II. Offshore Wind Has the Potential to Provide Significant Economic Development Benefits to Connecticut

Abundant offshore wind can connect to southeastern Connecticut and provide opportunities for the state to be involved in the construction, maritime and service sector activities related to the construction of offshore wind generation and transmission facilities. The states that go first in establishing this new growth industry will likely capture the largest amount of this market share. A 2017 report prepared by BVG Associates for New York and several New England states indicates that the larger the amount of offshore wind procured in the region, the more significant the job creation and the more likely that the demand will be sufficient for private investment in new manufacturing facilities.



RENEW Northeast

Offshore Wind Job Predictions



III. Offshore Wind Increases Grid Reliability and Lowers Emissions During Peak Winter Periods

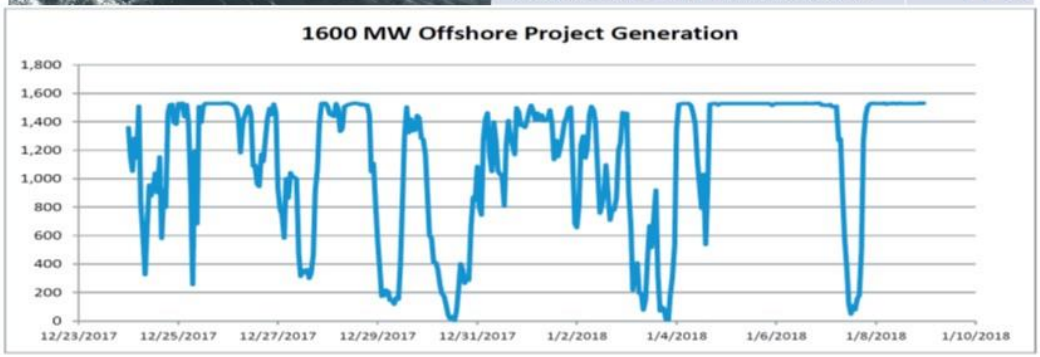
Connecticut's existing programs for energy efficiency and its RPS requirement are projected to reduce natural gas consumption from the electric generation sector and render any pipeline capacity expansion uneconomic.[2] By adding more renewable resources like offshore wind and energy storage, a build-out of the natural gas pipeline system will simply result in billions of dollars in costs to consumers for *unnecessary* pipeline capacity.[3]

In December 2018, ISO New England's System Planning Department conducted a high-level assessment of the effects offshore wind would have had on the power system and region under conditions similar to the cold weather in late December 2017 into early January 2018. The assessment considered production costs, environmental emissions, fossil fuel savings, and electricity prices. The ISO concluded that offshore wind would have displaced significant amounts of fossil fueled generation. This would have reduced wholesale energy prices, increased reliability by lowering the demand for natural gas on the constrained pipeline system and lowered emissions.

[2] Synapse Energy Economics, *New England's Shrinking Need for Natural Gas* (February 7, 2017) iii http://www.synapse-energy.com/sites/default/files/New-Englands-Shrinking-Need-for-Natural-Gas-16-109.pdf.
[3] *Id* at iv.

Wind as Winter Baseload Power

Offshore Wind Projected Performance 16-Day 2017-2018 Cold Spell	
Capacity factor	70%
Energy savings (millions)	$80-85
Avoided CO2 emissions	11%



Source: ISO New England System Planning Department December 17, 2018

IV. A Long-Term Procurement Strategy Will Lower Costs and Increase Economic Development Benefits

RENEW supports the Governor's Council on Climate Change December 2018 recommendation that "DEEP should exercise its full discretionary procurement authority for grid-scale renewable and zero-carbon energy. Continued investment in diverse, zero-carbon, renewable energy technologies will be necessary for Connecticut to meet its GHG emissions reduction goals."

To maximize the environmental and economic development benefits of offshore wind for Connecticut, RENEW recommends DEEP's existing procurement authority for renewable resources be raised to ensure that at least 1000 megawatts of offshore wind in addition to 1,000 megawatts of any Class I RPS resource including offshore wind can be procured by the end of next year. The legislation should also set a long-range plan or schedule for the procurement of at least an additional 1,000 megawatts of offshore wind beyond the next procurement. The plan would specify the date, size, and other key parameters of future solicitations. It would be a guidance document for the entire offshore wind industry– generation developers, transmission developers, and supply chain– to plan their activities and make their investments in the local supply chain. That will also foster competition and price reductions.

Thank you for the opportunity to offer these comments.

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